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SCHOOL AND SOCIETY

EDITED BY J. McKEEN CATTELL

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EDUCATIONAL REVIEW

EDITED BY WILLIAM McANDREW

Volume XXXI | SATURDAY, JANUARY 25, 1930 | Number 787

TEACHING BIOLOGY IN THE SECONDARY SCHOOLS[1]

By Professor HERBERT E. WALTER

BROWN UNIVERSITY

WHEN Rip van Winkle awoke after his sleep of twenty years he found many changes in his familiar surroundings.

My own somnolence is of even longer duration than Rip's, for I have been sequestered in cloistered college halls for a period of twenty-five years, and now your desperate committee has forced open my eyes and asked me to give my impressions of teaching biology in secondary schools.

In order to be somewhat refreshed and oriented I have been kindly supplied with a bundle of recent biological syllabi from various cities, including the excellent one worked out for Providence, which I have looked over with much interest.

I will confess to being rather appalled by the wealth of suggestion and the elaboration of detail which these syllabi contain, yet after all they have a strangely familiar look.

I thought we had settled upon the ideal course in high-school biology thirty years ago in Chicago. We surely debated the matter long and often throughout ten strenuous years to my personal knowledge.

Then I seem to recall that we settled the question of a proper course of biology for secondary schools *again once for all* just before the war, when a committee for the purpose was appointed by the National Education Association in 1913. We old settlers who labored on that committee met frequently for three years under the leadership of Mr. James E. Peabody, of New York City, and in 1916 finally published the official result of our formidable deliberations. That performance by good rights ought to have been final, but here we are at it again just as if all that ponderous wisdom had never been flashed upon a waiting world.

It is perhaps just as well. After all, I hope it will always be thus, for things that stay settled are dead and hopeless.

In what I have to offer to-day I am not going to attempt to be "practical," that is, I am not going to discuss laboratory methods and devices, tests, text-books, field trips, museum visits, quizzes and all such technical tricks of the trade, for a superannuated high-school teacher would only betray himself as out of date in the presence of practicing teachers fresh from grappling with these perennial problems.

I propose, therefore, to take directly to the air and to soar around harmlessly for

[1] Given before the Science Section of the eighty-fourth Rhode Island Teachers' Institute of Instruction at Providence, Rhode Island, October 24, 1929.

a short time in the unending ether with my feet confessedly off the ground. In following this course I am well aware that no new departure is being made from the customary procedure on such occasions as the present.

FACTORS

To obtain successful results in education there are at least four factors involved: namely, the pupil, the teacher, the equipment and the plan of work. To my mind the relative value of these four factors under maximum conditions of efficiency could be expressed in percentages about as follows:

The pupil	40 per cent.
The teacher	30 " "
The equipment	10 " "
The plan	20 " "

The pupil.—If this evaluation is even approximately correct, the most important factor of all is the human material one starts out to educate. Education is developing capacities which are already present and not the adding of something from the outside. You can not make silk purses out of sows' ears nor can you put up two quarts of intellectual jam in a pint jar. Neither can you do justice to a two-quart jar with only a pint of intellectual jam.

Now the task of getting hold of the most desirable raw material to teach is one for eugenics to handle, but this young science is unfortunately still in its infancy and has not yet worked out a practical program of operation. It is quite obvious that the theoretical way to secure "good blood" for our purposes is to start with the great-great-great-great-grandparents, but meanwhile the school bell has rung and our class of pupils in the flesh has assembled before us. We are compelled to go directly to work on the material before us since our job as teachers, particularly in the public schools, is to make the best of the human candidates that have been wished upon us.

In college and university the authorities make desperate Ellis-Island attempts, by way of entrance examinations of various kinds, to select only desirable pupils to be taught. This practice incidentally tends to render an inefficient college teacher less conspicuous than an equally inefficient teacher in the secondary schools because our pupils often show us up.

Success in education, nevertheless, depends upon recognizing the fact that all men are by no means "born free and equal" as regards their innate capacities, whatever may be their rights before the law. The maximum of future efficiency lies in the direction of discrimination in the selection of the raw materials to be developed. Why should we expect successful and consistent results if we persist in planting cabbages in the flower-bed and sweet peas in the vegetable patch? No amount of educational fertilizer or pedagogical cultivation will fundamentally change the inevitable outcome when our efforts are misdirected in this way. Our immediate day's work as teachers, however, still remains, that is, to grind out all the grist that comes to our mill, regardless of its quality. Any other procedure is at present beyond our control.

The teacher.—The factor of importance next to the quality of the pupil in any educational program is unquestionably the teacher. He is surely 30 per cent. of the whole problem. Any pupil stands a better chance with a good teacher who is forced to use a poor plan or an inadequate equipment than with a poor teacher with the best of plans of work and the most elaborate equipment.

The conviction still remains that in the pupil to be experimented upon "blood will tell," for the most capable and inspiring teacher can never represent a value quite equal to that determined by the innate capacity of the pupil himself in the adventure of developing a truly educated individual.

But, as in the case of the quality of the pupil to be taught, the teacher-factor in the country at large is not so easily or immediately improvable in our schools as would seem possible to outside critics. Good teachers are rather hard to get and poor ones, once engaged, are frequently embarrassing to get rid of. The untried candidate for a teaching position is at best an experiment and frequently requires considerable time and practice to shape up into efficiency. Old teachers, who may have been slowly undergoing pedagogical sclerosis after years in the harness, can not for various reasons be abruptly relegated to the scrap heap, fortunately for us. Thus the teacher-factor, like the pupil-factor, is largely beyond control, particularly on the part of the teachers themselves, and so the practical problem resolves itself into making the best of things as they are.

The equipment.—The educational plan and the equipment for executing the plan lend themselves, when compared with the pupil and the teacher, much more easily to outside interference and modification.

The material equipment, for example, may be modified with comparative ease, for it is something that can be bought with money, but it is undoubtedly the least important factor of all. The supreme values in education, as in life, are things of the spirit which can not be purchased.

In these prosperous times it is not at all unusual to find school equipment superior to the use which is made of it, while there is no doubt whatever that some of the very best teaching is accomplished in the absence of adequate material aids, when both teacher and pupil are thrown back upon individual initiative and invention of ways and means. I am sure that in my own experience as a high-school teacher some of my most triumphant results were attained when the "laboratory" consisted temporarily of a Woolworth equipment of tin pans, each with a live crayfish in it, on the top of ordinary schoolroom desks, although later I experienced the joy of being transferred to a brand-new modern laboratory equipped most generously in every way.

The story of teaching successes has repeatedly shown that it is not impossible to make bricks without straw. As a matter of fact, sometimes really better bricks have thus been made than when too much straw in the guise of elaborate facilities has been supplied. This statement should not in the least be taken as suggesting the advisability of fewer fine school buildings or of advocating parsimonious equipment. It is simply emphasizing the fact that the material aspect of the question represents not more than one tenth of the whole problem.

The plan.—In any case, the matter of the equipment is largely in the hands of the authorities who hold the money-bags, and thus it comes about that, of the four educational factors mentioned, it is the plan to be employed that remains the most modifiable side of the whole problem so far as we teachers are concerned.

It is around the plan of study that most pedagogical questions in practice and theory center, and consequently it forms the everlasting topic for discussion whenever educators put on war paint and hold a pow-wow.

THE OBJECTIVES

The details of any plan must always remain secondary to the objectives behind the plan. Without vision of what the whole thi g is about particulars become petty and inconsequential. In considering isolated trees one must never lose sight of the forest as a whole.

We can not too often clarify our ideas as to objectives that we are striving for, and therein lies the value of occasions like the present when we try to take account of stock and to focus our eyes on the far horizons. What then is really worth while?

There are at least three fundamental reasons for fostering the study of biology: namely, (1) to gain control of the forces of nature; (2) to learn a body of organized facts about living things, and (3) to acquire facility in the method of scientific thinking.

(1) *To gain control of nature.*—This objective is the practical aspect of biology. It furnishes the argument most frequently and convincingly advanced in seeking support for a biological program in the schools because of its obvious bearing upon human welfare.

As a matter of fact, our whole civilization is based squarely upon the biological business of the cultivation of crops and the production and maintenance of domestic animals. Our daily bread and meat depend upon the biology of the farm and the ranch. The fundamental importance of agriculture is beyond question, although that fact needs particular emphasis in city schools where pupils are somewhat removed from direct contact with the material sources of life with which the country pupil is more familiar.

Moreover, the practical aspects of biology which have to do directly with human health and disease, with sanitation and medicine and with the laws of inheritance in man and other organisms require no apology.

May I quote a paragraph from an address given by Professor Winslow several years ago at the Fourth International Congress of School Hygiene held in Buffalo? He says:

> It is an obvious truism that education is meant to prepare for living; it is clear that the most general and fundamental phases of the art of life should receive proportionate representation in the preparatory process.
>
> The average man uses his history once a day perhaps, his arithmetic somewhat oftener. Even his English grammar is on trial during a part of his working hours only, and his whole mental equipment is put by for a third of the twenty-four. He is *living* all the time, however, and is either well or ill, happy or miserable, efficient or useless, largely as a result of the conduct and management of the delicate physical machine which is in his charge.
>
> He may be innocent of historic fact, of the multiplication table and of syntax and yet be a useful and contented citizen. He can not be either long without observing the laws of hygiene and sanitation. I fancy any one with a child of his own will have no doubt that knowledge of what to eat and what not to eat and why, of the meaning and importance of fresh air, of the claims of exercise and rest, of the essential routine of body cleanliness, of how germ diseases are spread and how they may be controlled, of the methods of rendering water and milk safe and the reasons therefor, of the dangers of insect-borne diseases and of the essentials of public sanitation—these are of even greater moment than those which prepare for the intellectual and social life.

It is unnecessary to dwell further at this time upon the immediate benefits that are bound to accrue in a so-called practical way from biological study.

(2) *To learn a body of organized facts about living things.*—It is not quite so apparent why every one may profitably become biologically minded for the sake of the inherent values in the subject itself, without reference to any direct application to human life. The field of nature is so many-sided and pervasive that it is well worth our careful attention for its own sake. Pupils of high-school age are ordinarily not yet so blasé and sophisticated as to have lost a natural interest and curiosity in living things. The joys of discovery in the world of life are by no means exhausted, and there is nothing to prevent even a high-school pupil from experiencing the stimulating intellectual kick that goes with genuine research. This is one reason why biology is so often a popular subject in the school curriculum, if it is given a reasonable chance.

There is no field of intellectual adventure that lends itself more readily to the

stimulation of the imagination and to the enlargement of the horizon than living nature with its endless variety and panoramic extent. Any boy or girl who takes naturally to birds, insects, flowers or any sort of living things is well on the road to becoming a sane and desirable citizen. In sympathetic touch with his environment such a person can not only make wise use of his leisure, but is able also to evaluate the work of experts, while with a well-stored mind and a never-failing source of interest in things around him to which he may turn, he is bound to grow old gracefully. We all know such people. They are welcome friends and a joy to their associates.

(3) *To practice the scientific method of thinking.*—Quite aside from the innumerable advantages arising from the biological conquest of nature and from the unquestionable desirability of intelligent acquaintance with the world of life, I am firmly convinced that by far the greatest benefit that can accrue from biological study lies in the more or less intangible attitude of mind which biology, and the study of science in general, engenders. To us who have been brought up in a scientific age it is difficult to picture the spiritual bondage of fear and superstition that enshrouded our forebears in earlier times.

The scientific attitude of mind which the study of biology surely fosters does not regard disease, for instance, as a mysterious dispensation of Providence to be endured, or as an invasion by some sort of an evil spirit that must be exorcised and cast out by priest or medicine-man, but rather as the logical consequence of the working of natural laws which may be understood to the end that unfortunate results may be prevented.

The recrudescence of the evolution controversy witnessed in recent years indicates plainly that emancipation from mental slavery and prejudice is by no means universal.

For the biologist who continually passes in review the endless variety and adaptations of organisms, there is gained a subconscious sense of the infinite relationships of the forms of life which can not be grasped at once by the casual observer who is untrained in weighing evidences and who is still under the stultifying spell of authority.

It is possible to find, for example, perfectly respectable and intelligent people who accept the idea that a certain kind of soap will "preserve that schoolgirl complexion," because they have absorbed, consciously or unconsciously, the reiterated authority of the billboards. What could be more ridiculous?

Even among our most intimate friends there are sure to be some right here in Roger Williams' land of spiritual freedom who guide their behavior largely by unthinking acquiescence to authority and hearsay rather than by demonstrable evidence based upon common sense. To all such people the gospel of the scientific way of thinking would be a liberating godsend.

THE SCIENTIFIC METHOD

Just what is meant by the scientific method of thinking, which is the biologist's greatest gift to humanity, involves five steps as follows: (1) *To get facts*, at first hand, if possible, on the evidence of one's own senses and without recourse to second-hand authority. This requires the "seeing eye" and strict adherence to the truth, wherever it may lead. It does not do to make incorrect observations in collecting data, nor can one distort what actually is, into what one would like it to be. One must first of all come clean and be intellectually honest. Thus, a true scientist is never immoral. The moment he knowingly

juggles the truth, or misrepresents it in any way, he ceases to be a scientist.

(2) *To arrange the facts.*—This demands intelligence and an orderly mind. Facts derived from observations must be assorted into groups of like kinds in order to be available for use. The acquisitive type of mentality, which simply becomes a storehouse of miscellaneous information, does not lend itself favorably to the scientific method of procedure. Order, not chaos, is a prime essential in science.

(3) *To compare with other known facts.*—This step in the scientific process requires a knowledge of what has been accomplished by others. It involves wide reading, general information from all sorts of sources and particularly the ability to evaluate the work of experts, even if it is not always possible to understand all the steps by which conclusions are reached. It is this capacity of intelligent comparison that distinguishes an educated from an ignorant man.

(4) *To draw a conclusion from the facts.*—Man is probably the only animal that is able to connect properly cause and effect. The exercise of this heaven-sent ability is perhaps the most satisfying intellectual pleasure which human beings have. Yet how frequently is the divine gift set to one side and in its place the opinion or authority of another substituted!

That handling toads causes warts, or that thirteen at a table is unlucky, are instances of a wrong hook-up between cause and effect. The habit or attitude of mind which allows us to draw conclusions so wrong is the source of untold disaster and confusion in every-day life. Training in the scientific method tends to minimize the slovenly processes of thinking which allow us to confuse the relations between cause and effect.

(5) *To verify the result.*—Finally, the scientific method goes a step further and checks up on the conclusion arrived at by confirmatory proof through experiment or otherwise. Is the thing really so? When proof is forthcoming then the circle of scientific procedure is complete.

THE VALUE OF THE METHOD

To review the whole process of the scientific method, one begins with observations made at first hand; the data thus obtained are arranged in orderly array; these are then compared with similar observations made by others; a logical conclusion is drawn from the evidence, and, finally, the conclusion is verified.

That in brief is the scientific method, and the way of thinking which it involves is a greater boon to humanity than all the material triumphs, great as they are, that characterize the scientific age in which we live.

There is nothing abstruse or unattainable about it, any more than there is about "research" so-called, which sounds so formidable when written with a capital R, and when endowed by some great Foundation. The best definition of research with which I am acquainted is that given by Dr. H. C. Bumpus, who says, "Research consists simply in seeing things without being told." The scientific method of thinking is equally simple and possible for every one to practice.

It seems to me that the best thing that President Hoover, himself a man trained in the scientific method of thought, said in his speech this week at the Dearborn celebration in honor of Mr. Edison, was the following:

> Scientific research means more than its practical results in increased living comforts. The future of our nation is not merely a question of the development of our industries, of reducing the cost of living, of multiplying our harvests or of larger leisure. We must constantly strengthen the fiber of our national life by the inculcation of that *veracity of thought which springs from the search of truth.* From its pursuit we shall discover the

unfolding of beauty, we shall stimulate the aspiration for knowledge, we shall ever widen human understanding.

Much that we put over in the name of biology, both in college and high school, does not live up to this idea of the scientific method, nor does it lead to the emancipation from error which true scientific thinking makes possible. I am constantly aware, for example, that in regard to so-called laboratory work I fall short of our high calling over and over again.

It would be heresy in this assembly to express the suspicion that perhaps the laboratory has been overexploited. It is almost as sacrilegious as it would be to belittle the ark of the covenant. The laboratory method, introduced by Huxley less than a century ago, was such an emancipation from the old-time bookish slavery of pre-laboratory days that we may have been inclined to overdo it and to subject ourselves to a slavery of routine that is not much of an improvement over the former state of affairs.

It should certainly never be forgotten that the laboratory is simply a means to an end—that the dominant thing therein should be a consistent chain of ideas and ways of handling those ideas, rather than the following out of manual directions in confirmatory exercises upon specimens, pickled or otherwise. Too often the conventional study of an animal or plant in the laboratory takes the easiest rather than the most illuminating path. What is easier, for instance, particularly with large classes of restless pupils who apparently need to be kept for a predetermined period in a condition of uniform occupation, than to kill a supply of animals, preferably as nearly alike as possible, and to set the pupils at work making so-called drawings of the remains? This procedure may be supplemented by a series of cut-and-dried questions concerning the remains, which are designed to occupy the wandering attention of the pupils a while longer, perhaps until the bell strikes, and which are usually so planned as to forestall any spontaneous ideas that might naturally crop up in the pupil's mind during the vacuous drawing exercise.

Such an abuse of laboratory facilities is of course all wrong, and very likely does not occur anywhere in the state of Rhode Island except up on College Hill.

CONCLUSION

What shall we say then, in conclusion, is the very best thing that biology teachers can pass on to their pupils?

Is it to fire their imaginations with the conquests of nature which man has accomplished; is it to familiarize them with the wonders of the living world of which they are a part; is it to equip them with the knowledge that shall enable them to avoid controllable disease and to enjoy days of health and happiness? I think not. Important and desirable as these by-products of biological teaching are, I am firmly convinced that the highest objective is in training the pupil in the scientific attitude of mind, which shall enable him to meet all sorts of situations in life with sanity and confidence.

Why should we spend so much of our time and waste our energy over just what text-books shall be adopted, and exactly what types of animals shall serve as laboratory martyrs? As a matter of fact one is about as good as another in the hands of teachers with vision and pupils with innate capacity to learn. Without such pupils and teachers even the best syllabus and the most complete equipment are of small avail.

Practice in the scientific method of thought should never be lost sight of. It instills confidence in the unshakable reliability of natural laws; it develops an unswerving allegiance to whatever is true; it

fosters intellectual honesty, and it dispels the enveloping fogs of fear and superstition which are the greatest sources of human ineffectiveness and unhappiness.

Listen, as a final word, to that good scientist of old, Paul of Tarsus, whose clarion call still rings true in our ears to this day, when he sums the whole matter up by saying, "Prove all things, and hold fast to that which is good." To do just that is the high service to mankind of the scientific method of thinking.

A PRACTICAL APPROACH TOWARD CHARACTER EDUCATION

By Dr. RICHARD D. ALLEN

ASSISTANT SUPERINTENDENT OF SCHOOLS, PROVIDENCE, RHODE ISLAND

MODERN educational philosophy has set up a threefold ideal: (1) the education of all the people; (2) the education of each according to his needs and abilities, and (3) education as a continuous process from the cradle to the grave. In this ideal, character education has the place of first importance theoretically, though in practice little has been accomplished directly, and there is much confusion in regard to principles, definitions and methods. Progress toward agreement is being made. It is the purpose of this article (1) to state a point of view, (2) to present a practical method of approach and (3) to point out some of the difficulties as well as some of the possibilities of the method. The great need is for a method which can be used with all people and at all ages, which can be adapted to individual needs and abilities and which can be applied continuously to the same group.

A point of view.—In the past it has been the practice of religious and moral teachers or leaders to evaluate conduct according to previously formulated codes. These codes represented ideals of right or wrong conduct. By applying them to any situation each individual might know whether an action was good or bad. This process was simple since it involved merely the application of a formula; no thinking or individual judgment was required. The thinking and judging had all been done by the formulators of the codes. The result was a static, not a dynamic way of living.

The Great Teacher avoided this error by directing attention away from any fixed formula of ready-made judgments and toward a method of making social judgments. The golden rule requires imagination, thinking and the making of judgments. Perhaps that explains some of the difficulties of its application and the slowness with which humanity has applied it although none challenge its essential truth. Difficult as the problem may be, it appears that there can be no short cut to character or moral education. It seems probable that the desired results can be accomplished best through continuous practice in the process of making social judgments. If this is true, many problems must first be solved: Can a way be found for providing such practice? Can social or moral judgments be assured from individuals who have not had previous moral training? Must we teach before we practice, or can an experiment be set up by which practice may result directly in learning and power? It is the old question of the deductive *versus* the inductive method. Shall we first learn the principles or shall we develop principles from the original data of experiences? It is the method of philosophy *versus* the method of science.

The present approach is the result of a principle formulated by Spencer and later by Crozier. They stated that whenever there is a sufficiently large circle of disinterested observers to a problem involving conduct, the group judgment would always be a moral judgment.

If this principle is a natural law and can be applied in practice, it may have as important results in the field of human conduct as the law of gravitation has had in the science of physics. Is it possible to set up an experiment in the field of conduct in such a way that a right judg-

ment can always be assured? The Great Teacher believed that it could if the individual would look upon the problem from the point of view of the other fellow. That is the essential thing—the social point of view. How can it be obtained in every social problem?

Let us analyze the essential factors in the proposed situation or experiment: (1) A problem involving conduct—not a generalized question for debate, but an actual case between individuals involving personal and social relationships. (2) A sufficiently large group of disinterested observers, persons who have nothing to gain or to lose by the result, who are not influenced by friendship or by animosities and who can be depended upon to assume an impartial and impersonal attitude. (3) An opportunity for free conference, the expression of personal opinions, the comparison of judgments, the socialization of individual opinions.

These are the essential elements of the experiment, but three additional safeguards are also necessary: (1) The development of the conference technique. (2) A trained conference leader who has mastered the method. (3) A proper selection and preparation of the cases for conference.

The conference technique has recently been formulated, leaders can be trained and proper cases can be prepared and selected. A further word about each of these essential safeguards:

(1) *The development of the conference technique.*—This has been done only recently by experts of the Federal Board for Vocational Education in order to meet problems of instruction involved in the training of foremen in which the traditional educational procedures had proved ineffective. Space here does not permit an extended summary of the technique. It is sufficient to state that the technique of the conference is essentially different from that of the discussion method, the socialized recitation or the project method. Those who are interested should read "Training Foremen by the Conference Method" by Cushman and "The Process of Group Thinking" by Harrison S. Elliott, as well as the teacher's manual by Paul M. Reading entitled "The Case Conference Method in Problems of Every-day Life."

Some of the essentials are: (1) The leader does not lead the thinking. He merely states the case, sees that there is an opportunity for the free expression of individual opinion and summarizes the group judgment when it has been made. (2) The leader must never show his approval or disapproval of individual opinions, since such expression will terminate the true conference. (3) The leader may occasionally ask questions to draw out opinions or to call attention to additional factors in the situation. (4) The conference leader must be merely a presiding officer, but it takes much skill and self-restraint to do that well. (5) The conference is effective only as long as there is sincerity in the attitude of the group. Such a spirit may be inspired by the conference leader. A poor conference is a miserable affair, wasteful in time and ineffective in result. A good conference is inspiring, constructive and effective because social judgment and social pressure are the most effective instruments for the control of conduct.

The remaining elements, the leader and the case, are the greatest dangers of weakness in the plan. Teachers usually are poor leaders because they are so much in the habit of expressing approval and disapproval of individual opinions that they find it difficult to refrain from the practice. They have been telling pupils what they should think and do for so long that it is almost impossible for them to stop at once. Some of them, however, can be trained. All leaders need training if success is to be assured. The most common mistake made by prospective leaders is that they assume that they know all about the conference technique merely because it is somewhat similar, in certain regards, to other methods with which they are familiar. Moreover, it is difficult even for those who understand to become proficient in practice.

The proper statement and selection of cases is essential to the success of the method. First, cases must be typical; that is, a majority of the pupils must recognize in the case a real problem similar to problems in their own experience. A background of experience constitutes the preparation with which the individuals of the group approach the solution of the problem. Without such a background, although a group solution may not be impossible, it is, nevertheless, a waste of time to consider cases which are not problems to the majority of the group. It

is a common failing of leaders to select cases which are conspicuous or difficult or interesting but are not typical. Such a practice is wasteful. It is the case that is a real problem to most of the pupils which is worthy of group discussion.

Second, the cases must challenge the intelligence of the group. In order to do this they must be neither too obvious nor too difficult. They must not be perfect examples, like the parable which defines through its perfection, or horrible examples, like the stories with which former generations frightened children into being good. They must be located in the "doubtful realm where a hair divides the false and true" and where reasonable persons may differ in their solutions. Here, again, it is necessary to avoid a tendency to debate fine distinctions, thus making practice in formulating social judgments subordinate to practice in argumentation. It is a mistake to assume that any novice can formulate a case for conference. A study of many cases submitted by teachers indicates that most of them are either atypical or obvious.

The third step in the preparation of cases is a careful analysis of each case into its essential elements and the preparation of suggestive questions for the guidance and assistance of the conference leader. Such careful preparation prevents rambling and aimless discussion.

Like practice in any other field, the practice in making social judgments may be overdone and become tiresome. Judiciously used, it develops group action, tolerance, moral strength and moral leadership. It does this without the necessity of preaching.

The following are comments on the method by the pupils of the Hope Street High School which were compiled by Miss Hall, head of the English department:

Reactions to the Case Conference Method from Pupils

1. A good idea, for it draws forth a forum-like discussion and stimulates thought.
2. Every one has an opportunity to express his ideas.
3. It teaches pupils to draw their own conclusions.
4. It permits one to hear the other side of a question and the opinions of others.
5. One finds that the truths of three hundred years ago are also true to-day.
6. A "happy medium" is arrived at after the class has heard both radical and conservative ideas.
7. It makes pupils more tolerant of others.
8. One is less apt to say what he thinks the teacher wants and is more apt to express his own views.
9. We understand the truths of literature better when the case is used because the events are nearer our own lives.
10. It stimulates interest on moral and civic issues which some of us have never faced before.
11. The cases are within the range of experiences of pupils.
12. It gives the teacher an insight into the moral make-up of the class.
13. We learn to think quickly on our feet.
14. It brings pupils "out of themselves."
15. New opinions are formed, old ones are strengthened, practice in speaking is acquired and the result is in general satisfactory.
16. It gives us problems of every-day life and helps us solve them.
17. The group always arrives at a worth-while conclusion.
18. In a group we analyze a subject which we might not sit down and think out for ourselves.
19. It is a test of one's beliefs to stand up for them in face of opposition and still hold them.
20. One gets away from books and down to real facts.
21. It permits the pupils to do the talking instead of the teacher.
22. We talk on subjects about which we know, but on which we seldom speak in public.
23. Pupils get much more from a recitation in English when they can get on their feet and do their own talking.
24. Some people never form an opinion until they are brought to the point where they have to express it.
25. This makes some pupils actually think.

The method promises a scientific approach to problems of conduct and character since it directs attention to the original data of conduct and emphasizes group thinking rather than fixed formulas. It can be applied in the kindergarten or in the adult group by the proper selection and formulation of cases and by the necessary trained leadership.

EDUCATIONAL EVENTS

THE UNIVERSITY OF PORTO RICO

A SPECIAL correspondent of *The Christian Science Monitor* gives the following account of conditions at the University of Porto Rico:

Hoping to build its university into a Pan-American cultural center that would draw students from all countries in the Americas, Porto Rico is looking for a chancellor for this institution. There is general agreement that this educator should come from the United States. Through such an institution, leaders believe, Porto Rico would make a definite cultural contribution to the nation, justifying the island's association with the United States, and at the same time strengthening its kinship with Latin America.

A Pan-American university here has been discussed for many years. Some definite progress has been made. Two years ago the University of Porto Rico, which is the only institution of its rank south of Florida that is recognized by similar institutions in the United States, celebrated its twenty-fifth anniversary.

Many of the island's students and graduates have gone to the United States to finish their studies, take professional courses or post-graduate work, and many have remained there, more, probably, have returned to the island, while others are to be found in almost every Spanish-speaking country in Central and South America. Besides its liberal arts college the university has colleges of agriculture and engineering, law and pharmacy.

The present acting chancellor of the university is Dr. Gildo Massó. He has announced that he is not a candidate for the chancellorship. A product of the island public-school system, established since the American occupation, Dr. Massó became a school teacher, then supervisor of schools. Later he went to the United States, where he graduated from the Ohio State University and later took his master's degree at the University of Chicago. He received his doctor's degree from Columbia University.

Interest in the possibilities of the larger development of the university was revived recently, when Governor Theodore Roosevelt spent a day at the institution at Rio Piedras, a few miles from San Juan, when he devoted much of his address to the students and faculty, enlarging upon the Pan-American significance of the university. One graduate school already has been established, he pointed out, which will be of benefit to all tropical countries. This is the School of Tropical Medicine, under the joint auspices of Columbia University and the University of Porto Rico. This was the first school of tropical medicine to be actually located in the American tropics.

Cornell University has become interested in the establishment of a graduate School of Tropical Agriculture, and the preliminary details have developed to such a point that the undertaking is considered as definitely assured. Boston University has cooperated in the establishment of a College of Business Administration. The revival of the idea of the Pan-American university has at the same time, however, revealed certain local shortcomings in the present university organization which are causing much concern. They are being much discussed at present in the island newspapers.

The fact that the university is at present without a chancellor, and is looking for one, is due to the dismissal last May of Dr. Thomas Eliot Benner, a Harvard man, now professor at Teachers College, Columbia, after almost five years as chancellor. As an island institution the university is supported by public funds, and is similar to most state universities in its government. Under the present law and composition, the board of trustees is almost wholly political. Six of the nine members of the board are, or have been, members of the Insular Legislature, and of the other three, two are considered to have been appointed essentially for political reasons. The other member is a woman. The president of the board of trustees is Dr. Antonio R. Barceló, president of the Senate and for fifteen years powerful in politics.

Shortly before Dr. Benner's dismissal, Dr. Barceló announced that either Dr. Benner or himself had to go. Recently Dr. Barceló had published in his newspaper the statement that, were the matter now in his hands, he would reinstate Dr. Benner. However, the difficulties leading up to Dr. Barceló's edict that Dr. Benner had to go developed at the last session of the Legislature, when legislation in behalf of the university was finally passed by unanimous votes in both houses. The popular impression was that Dr. Barceló became fearful of the growing interest in the university, as indicated by its strength in the Legislature—a force he finally ceased to combat.

PRIZE CONTESTS OF THE LEAGUE OF NATIONS ASSOCIATION

Two national contests on the League of Nations are announced by the Educational Committee of the League of Nations Association.

Students in the 6,967 high schools throughout the United States will have a chance to compete in an examination on the league, while those in over 300 teachers colleges and normal schools may submit a thesis on some phase of internationalism. The winning student in each contest will have a trip to Europe, with a stay in Geneva to study the League of Nations at work; the second prize in each is $100; the third prize $50; in addition, a series of state and city prizes will be arranged by branches of the association. The high school examination will be held on March 14 in the various schools; registration for the thesis contest must be in by March 1, and the papers themselves must be mailed to the committee on award by March 31.

The examination is the fourth of the National Competitive Examinations for High-school Students to be held by the League of Nations Association. The trip to Europe was first won by David Wilson, 15 years old, of Portland, Oregon; the second year by Henry Benson Bobo, 15 years old, of Clarksdale, Mississippi, and last year by Winfred Polk, 16-year-old student of Corning, Arkansas.

This year the contest for teachers colleges and normal schools is to be in the form of a thesis instead of an examination. The subjects include: How Patriotism and Internationalism may be Reconciled in the School; The Growth of International Cooperation through the League of Nations; Disarmament: Obstacles and Accomplishments; Practical Suggestions for Instruction in the League of Nations through the Teaching of Geography; An Original Story for Children, based on some specific incident or accomplishment of the League of Nations, or illustrating the aims and ideals of the league. If there are other topics in which students are particularly interested, they may submit such topics to the Committee on Award for approval.

Any regularly enrolled student in a teachers college, normal school or department of education of a college or university may compete. Students must register for the contest by March 1, 1930, and the essays must be mailed not later than March 31 to the Committee on Award, Teachers College Contest, League of Nations Association, 6 East 39th Street, New York City. A suggested bibliography will be sent on receipt of the registration blank.

NATIONAL DRAMA WEEK

National Drama Week of 1930 is to be celebrated in the week of February 9 to 15, according to the Church and Drama League of America, which is sponsoring the sixth of these annual events. The Honorable John W. Davis is honorary president of the league; the Rev. S. Parkes Cadman is president, and the Rev. George Reid Andrews is executive director. From the plans which have already been worked out by hundreds of organizations of all kinds throughout the country, Drama Week this year is expected to surpass in breadth and variety of activity the celebrations of previous years.

The purpose of Drama Week is to throw the spotlight of public interest on the part which the drama plays in the life of the individual, the life of the community and the life of the nation. The activities of Drama Week serve to dramatize the power of the theater and its inimitable services to culture, education, recreation and civic spirit. They serve also to stage the appeal of the drama to the public—the appeal for audiences which understand, for audiences which appreciate and show their appreciation, for audiences with a growing taste for the best.

Among the national organizations which are endorsing Drama Week this year and cooperating in its activities are: the Actors Equity Association, the Actors Fidelity League, the American Child Health Association, the American Federation of Labor, the American Library Association, the Arizona State Drama Association, the General Federation of Women's Clubs, the Girl Scouts, the International Lyceum and Chautauqua Association, the National Association of Book Publishers, the Playground and Recreation Association of America, the Young Women's Christian Association, and the Zeta Phi Eta Sorority.

Each day of the week is to be dedicated to a different phase of the drama's many significant relationships. Sunday, February 9, is to be devoted to "Drama and the Church"; Monday to "Professional Theatre Day"; Tuesday, "Drama and the Clubs and Organizations"; Wednesday, "Drama and the Radio"; Thursday, "Drama in

the Community"; Friday, "Drama in Education"; Saturday, "Drama in Print."

CORNELL UNIVERSITY COURSE IN HOTEL ADMINISTRATION

WHEN the alumni of the Cornell University course in hotel administration met for the third annual dinner of the Cornell Society of Hotel Men at the Hotel Pennsylvania, New York City, recently a tabulation was made of the salaries earned during 1929 by the members of the various graduating classes present. The information was obtained by means of a questionnaire which the graduates filled out but did not sign.

An analysis of the figures obtained from this investigation shows the salaries earned during 1929 for the classes from 1925 to 1929 inclusive to be as follows:

Class (year graduated)	Average Amount Earned During 1929
1925	$4,575
1926	4,500
1927	4,132
1928	2,504
1929	1,540

(The above averages were obtained from the figures the men gave as their cash salary plus their estimate of the value of food and lodgings where it was provided.)

Cornell's four year hotel course was the first to be established in any university in the world. In 1922 the first class numbered 20 students. To-day the student body is over 160. Ninety alumni are in the field in hotels in the United States, Europe, Japan and South Africa. In addition to the four year course granting a B.S. degree, Cornell gives two short three week summer sessions in hotel work. Last summer 100 men and women attended these sessions.

The Cornell work was founded with the cooperation and financial assistance of the American Hotel Association. H. B. Meek, of Boston, formerly a hotel man, has directed the work since its inception.

RESEARCH CONSULTANTS OF THE LIBRARY OF CONGRESS

AN achievement of the Library of Congress during the year was the inauguration of an experiment in rendering further service through specialists or consultants in association with the library yet without administrative responsibility, the librarian, Herbert Putnam, stated orally on January 17 to the representative of the *U. S. Daily*.

To enable the library to carry out a plan for the development of a system of research consultants, the General Education Board provided $75,000. It seemed desirable, Dr. Putnam explained, to have within the library a group of specialists, unencumbered by administrative responsibility such as the holders of chairs in music, the fine arts, and American history, and free from the convention it involves, who might render to the institution itself valuable advice in the development of the collections and in assisting the public, especially students and investigators in special fields where expert knowledge of sources and important materials is necessary.

Dr. Putnam pointed out that since those qualified for the service would be for the most part men retired from formal teaching or research, an honorarium of $2,500 per annum was thought to be adequate for their informal assistance. Ripe with experience in their respective fields, these scholars, it was explained, in an advisory capacity will greatly facilitate research students visiting the library from various countries, universities, and foundations. As specialists they can assist the library in acquiring more books and in enlarging the bibliographical sources.

The idea of creating a number of consultants of this character has been taking shape gradually, Dr. Putnam stated. Mr. Archer M. Huntington over a year ago contributed for this purpose a fund of $50,000, the income of which should apply as an honorarium for a consultant in the field of Hispanic and Portuguese literature. The grant by the General Education Board followed this endowment last year and recognizes the validity of the idea by providing for a more adequate extension of it, Dr. Putnam said.

Those in prospect during the present season to act as consultants of this character are as follows:

In Hispanic literature: Señor Don Juan Riano.

In English literature: Dr. Mark A. De Wolfe Howe.

In classical literature: Professor Harold N. Fowler.

In European history: Professor Henry E. Bourne.

In economics: Dr. Victor S. Clark.

In science (half year): Professor Alfred C. Lane.

In philosophy (part year): Professor William A. Hammond.

When one contemplates the various departments of knowledge in which scholarly advice of this kind would be serviceable to the library itself and the public in general, Dr. Putnam said that 15 such consultants should be the minimum. At honoraria of $2,500 each, this would involve for the group an annual expenditure of $37,500. To provide such a sum, it would be necessary to have an endowment of $750,000 with an annual income of 5 per cent. The introduction of specialists of this kind is an experiment in library service, and its benefits already have proved of merit, Dr. Putnam added.

EDUCATIONAL RADIO

HEADED by Dr. Ray Lyman Wilbur, Secretary of the Interior, and Dr. W. John Cooper, U. S. Commissioner of Education, a general advisory board for the recently announced "American School of the Air," which will bring together a distinguished group of nationally known educators is announced by the Columbia Broadcasting System and the Grigsby-Grunow Company, cosponsors of the experimental radio school.

At a meeting in Washington at the Mayflower Hotel in conjunction with the recent annual Conference of State Superintendents of Public Instruction and Commissioners of Education, Ray S. Erlandson, educational director of the Grigsby-Grunow Company; Miss Alice Keith, director of the American School of the Air, and Warren H. Pierce, educational director of the Columbia Broadcasting System, made public complete details of the plans for this educational series which will be presented twice weekly for seventeen weeks, starting on February 4.

The advisory board of the American School of the Air will be composed of three divisions—advisory council, advisory faculty and committee on evaluation.

Dr. William C. Bagley, professor of education at Teachers College, Columbia University, will be dean of the advisory faculty. While this faculty is as yet incomplete, the following have accepted positions: Henry Turner Bailey, of the Cleveland Museum of Art; Howard Hanson, director of the Eastman School of Music; P. W. Dykema, head of the music department of Teachers College, Columbia University, and Miss Effie Powers, head of the children's division of the American Library Association. A. L. Schafer, associate director of the American Junior Red Cross, will serve as the adviser for the series on health and hygiene.

The state superintendents attending were asked to serve as state chairmen of the committee on evaluation in their respective states for the measurement of effects and results arising from this test series of educational broadcasts. While no official count was taken of those who will actively cooperate in this function, among those who expressed their willingness to do so were: Dr. J. L. Clifton, Ohio state superintendent, John A. H. Keith, superintendent of public instruction for Pennsylvania; Miss Agnes Samuelson, Iowa state superintendent; M. L. Duggan, Georgia state superintendent; Atanasio Montoya, New Mexico state superintendent; N. D. Showalter, Washington state superintendent, and E. C. Giffen, state superintendent of South Dakota.

Other educators who attended the conference and promised their full cooperation were: J. W. Crabtree, secretary of the National Education Association; Dr. W. John Cooper, U. S. Commissioner of Education; Mrs. Cora Wilson Stewart, director of the National Illiteracy Crusade, and Walter R. Siders, field representative of the World Federation of Education Associations.

TENTH ANNUAL OHIO STATE EDUCATIONAL CONFERENCE

THIRTY-TWO speakers from other states have already been secured for the Tenth Annual Ohio State Educational Conference, April 3, 4, 5, 1930. Half as many more are to be secured. A list of these speakers, the sections in which they speak and the titles of their addresses (when known) are as follows:

H. H. Barrows (University of Chicago), *Geography*, "Geography and the Individual."

Charles Scott Berry (University of Michigan), *Special Education.*

William Betz (Rochester Public Schools, New York), *Junior High School Principals,* "The Cultural Significance of Mathematics in the Junior High School"; *Mathematics.*

F. G. Bonser (Columbia University), *Industrial Arts and Vocational Education,* "The Consumer's Purpose in Vocational and Practical Arts Education"; *High School Principals,* "Is Secondary Education Possible and Desirable for Every One?"

Rollo Brown (Cambridge, Massachusetts), *Art.*

Paul A. Carlson (Whitewater, Wisconsin), *Commercial Education,* "Tests and Measurements."

Morse Cartwright (American Association of Adult Education), *Adult Education.*

Arthur Compton (University of Chicago), *Non-biological Science.*

Ellwood Cubberley (Stanford University), *County Superintendents,* "Four-fold Nature of the Superintendent's Work"; *City Superintendents,* "Three Key Problems of the Teaching Profession."

W. C. Curtis (University of Missouri), *Biological Science.*

N. L. Engelhardt (Columbia University), *Village and Consolidated School Superintendents,* "How to Improve the Administration of Schools"; *School Business Officials,* "The School Business Official as an Educator."

Lucile F. Fargo (school library adviser, temporary, Akron, Ohio), *School Librarians,* "Preparation for School Librarianship."

H. L. Harrington (Detroit Public Schools), *Junior High School Principals,* "The Ideal Mechanical Organization of the Junior High School."

Jessie Harris (Peabody College), *Home Economics.*

Jay William Hudson (University of Missouri), *Music.*

Robert M. Hutchins (president, University of Chicago), *General Session.*

Henry Johnson (Columbia University), *Social Studies,* "Making History in School Historical"; *Elementary Teachers,* "The New History in Education."

A. J. Klein (U. S. Bureau of Education), *Higher Education,* "Cooperative Experimentation in Higher Education."

Harry Kurz (Knox College), *Modern Language.*

Mark A. May (Yale University), *Religious Education,* "Some Scientific Aspects of Character Education"; *Educational and Intelligence Tests,* "Character and Personality Tests."

Elton Mayo (Harvard University), *Attendance Supervisors, School Nurses and Visiting Teachers,* "Psychology in Industry"; *Clinical Psychology,* "The Work of Jean Piaget."

Emma Grant Meader (Russell Sage Foundation), *Kindergarten,* "Speech Difficulties and Personality Adjustments of School Children"; *Elementary Teachers.*

J. H. Newlon (Columbia University), *City Superintendents,* "The Work of the School Executive"; *Elementary Principals.*

Terry Ramsaye (New York City), *Visual Education.*

Harold O. Rugg (Columbia University), *Teacher-training.*

Wilfred Shaw (University of Michigan), *Adult Education.*

Esther Sherman (Detroit Board of Education), *Physical Education.*

Frank Sohn (Vitrolite Company, Chicago), *Art.*

E. H. Sothern (Actor), *General Program.* "Readings from Shakespeare"; *English,* "Great Actors and Actresses of the Past."

Levering Tyson (Columbia University), *Adult Education.*

Ray Lyman Wilbur (Secretary of the Interior), *General Session* (Tentative).

Ben D. Wood (Columbia University), *Higher Education,* "Watch the Individual Grow"; *Educational and Intelligence Tests.*

EDUCATIONAL NOTES AND NEWS

DR. ROBERT H. TUCKER, professor of economics at Washington and Lee University, was elected acting president of the university by the Board of University Trustees on January 20. He succeeds Dr. Henry Louis Smith who retired on January 1. Dr. Tucker will serve until a permanent executive is named.

PROFESSOR CLAUDE BURTON HUTCHISON has been appointed dean of the College of Agriculture and director of the Experiment Station of the University of California, to succeed Dr. Elmer D. Merrill, who has resigned to become the director of the New York Botanical Garden. Dr. Hutchison is director of the Giannini Foundation for Agricultural Economics and will continue to hold that post until a new director can be found to take his place. Howard Ross Tolley, assistant chief of the Bureau of Agricul-

tural Economics in the U. S. Department of Agriculture, has been named assistant director and professor of agricultural economics on the Giannini Foundation.

BECAUSE of illness Dean Virginia C. Gildersleeve, of Barnard College, has begun a leave of absence a month ahead of her scheduled sabbatical respite. Professor George Walker Mullins, head of the department of mathematics, has been appointed acting dean. Dr. Gildersleeve sails for Europe on February 15. She plans to resume her work at the beginning of the next academic year in September.

ACCORDING to an Associated Press dispatch Dr. Jacob Gould Schurman, retiring American ambassador to Germany, from 1892 to 1920 president of Cornell University, has presented his letter of recall to President von Hindenburg. This was followed by a luncheon in the executive palace.

THE corner-stone of the new "American Hall" of Heidelberg University, for which Dr. Schurman obtained funds, was laid on January 13. Emil Gotschlich, rector of the university, sent a message to President von Hindenburg paying tribute to Ambassador Schurman's generous initiative.

DR. ROBERT G. SPROUL, vice-president and comptroller of the University of California, who spent the late fall and early winter visiting eastern colleges and universities, is returning to the east to continue his study of institutions there and in the middle west. Dr. Sproul becomes president of the University of California on July 1, 1930.

THE cross of the Legion of Honor has been awarded to Dr. George J. Ryan, president of the New York City Board of Education, in recognition of his war work. The ceremony took place at the French Consulate. Following the ceremony Dr. Ryan was host at a luncheon at the Ritz Towers.

SUPERINTENDENT WILLIS A. SUTTON and the school principals of Atlanta, Georgia, gave a luncheon on January 16 in honor of Miss E. Ruth Pyrtle, president of the National Education Association.

CELEBRATING the close of fifty years of teaching in New York City high schools and at the College of the City of New York, Professor Erastus Palmer was the guest of honor at a dinner given recently at the Hotel Pennsylvania by 150 colleagues and former students. President Frederick B. Robinson, once a pupil of Professor Palmer, was the toastmaster. The speakers were: Dean Daniel W. Redmond, Professor Lewis Freeman Mott, senior professor at the college; Dr. Frederic A. Woll, head of the hygiene department; Dr. Charles W. Gerstenberg, head of Prentice Hall Publishers, twenty-five years ago a student of Professor Palmer at Boys High School, Brooklyn; M. Maldwin Fertig, '07, former assistant corporation counsel; Dr. John H. Finley, of the editorial department of the New York *Times*, former president of the College of the City of New York.

DR. PAUL MANN, of Evander Childs High School, has been elected to succeed George T. Hastings, of Theodore Roosevelt High School, as president of the New York Association of Biology Teachers.

DR. HERMAN M. ADLER, Illinois State Criminologist and director of the Chicago Juvenile Psychopathic Institute, has accepted a professorship of psychiatry at the University of California, Berkeley, and an appointment as consultant to the California State Department of Institutions.

THE organization of a Department of Dramatic Art, to be headed by Dr. Maurice Gnesin, former professor of dramatics at Syracuse University, and more recently director of the Little Theatre of Duluth, Minnesota, has been announced by the University of Denver. The college department will work with the Denver Art Theatre, which Mr. Gnesin also will serve as director. The new University Theatre in the Margery Reed Mayo Memorial Hall will be the scene of productions.

DR. JOHN C. H. WU, who has been appointed professor of political science at Harvard University, left China on December 28 for the United States. He will make a study of the juvenile court in America and its relation to the community.

AT the Ohio State University Professor H. H. Maynard has been named chairman of the department of business organization, to succeed Professor Walter C. Weidler, who has been

named dean of the college of commerce and administration.

DR. R. H. JORDAN, of Cornell University, has been appointed a member of the examinations board of the University of the State of New York for five years, effective on January 1. Dr. Jordan succeeds President Livingston Farrand, whose term as a member of the board expired on December 31. Harvey O. Hutchinson, superintendent of schools at Elmira, and Dr. John H. Denbigh, principal of the Packer Collegiate Institute, Brooklyn, have been appointed to the board for five-year terms.

AT a recent special meeting the New York City Board of Superintendents tentatively nominated the following five men for existing and prospective vacancies in the position of high-school principal: Frederick W. Oswald, Jr., first assistant at Manual Training High School; William R. Lasher, teacher of mathematics and formerly administrative assistant at Erasmus Hall High School; Gabriel Richard Mason, principal of Junior High School 37, the Bronx; William A. Clarke, first assistant at James Monroe High School; John M. Loughran, principal of the New York Evening High School and head of an annex at De Witt Clinton High School.

DR. CARL W. WOODWARD, assistant to Dr. John M. Thomas, president of Rutgers University, has been appointed head of the newly established office of educational research under administration of the school of education.

WALTER G. PRESTON, JR., of Omaha, Nebraska, who has been made assistant to Dr. Robert Maynard Hutchins, president of the University of Chicago, was editor of the *Yale Daily News* when Dr. Hutchins was secretary of the university.

R. TENCHER, for the past ten years district manager in Chicago of Dwight P. Robinson and Company, construction engineers, is now associated with the department of personnel at Northwestern University as director of placement, and will give all his time in the effort of adjusting undergraduates to business.

HENRY COOK HATHAWAY has resigned as director of public occasions and of the bureau of public information of New York University, and is succeeded by Professor Alvin C. Busse, of the university's public-speaking department at the University Heights center.

AFTER thirty-seven years as a student and administrative officer at the University of Chicago, Walter A. Payne, recorder and examiner, will retire at the end of the current academic year in June. He will be succeeded by Roy White Bixler, now assistant examiner.

DR. HARRISON A. DOBBS, associate professor of social economy at the University of Chicago, has been appointed director of a two-year study of juvenile detention throughout the United States, for which an appropriation of $33,000 has been provided by the Bureau of Social Hygiene of the Rockefeller Foundation.

STATE SUPERINTENDENT S. M. N. MARRS, of Texas, has designated Milton Fairchild, of the Character Education Institution, Washington, D. C., as special consultant in Texas for problems of character education.

DR. MARY E. WOOLLEY, president of Mount Holyoke College, will act as international chairman of the sessions of the Second Pan-Pacific Women's Conference, which will be held in Honolulu in August under the auspices of the Pan-Pacific Union. The conference will convene on August 9 and will continue over a period of two weeks, the delegates residing, as in 1928, at Castle Hall on the Punahou Campus.

PROFESSOR OLIVER M. W. SPRAGUE, Edmund Cogswell Converse professor of banking and finance of Harvard University, has left for London. Though no official announcement has been made, it is reported in the daily press that Professor Sprague will be asked to work as the Bank of England's liaison officer with the central banks of other countries, among them the German Reichsbank, the French National Bank, the Federal Reserve Bank of this country and the recently established International Bank.

DR. JOSEPH S. ROUCEK, head of the department of social science at the Junior College of Centenary Collegiate Institute, Hackettstown, New Jersey, has been invited by the Roumanian government to visit that country this summer and to write a book based on his study of

conditions there. The general title for his book will be "The Roumanian Government and Politics." He will also be a visiting professor at Charles University, Prague, Czechoslovakia. Dr. Roucek was a guest of both the Roumanian and Czechoslovakian governments in 1928. Since that time he has completed his book "The Working of the Minorities System Under the League of Nations," which is considered an authority on the subject by the Roumanian government. At Charles University, which is the oldest university in Central Europe, founded in 1348, Dr. Roucek will lecture on American institutions.

MISS ANNIE W. GOODRICH, dean of the Yale School of Nursing, has been invited by the Rockefeller Foundation to make a study of nursing conditions in the Orient in company with Miss Mary Beard, assistant director of medical sciences for the foundation. Dean Goodrich, who has three months' leave of absence, and Miss Beard sailed on January 11. Their primary visit will be made at the Peking Union Medical College, and at St. Luke's International Hospital at Tokyo. Chief among the problems in which Dean Goodrich and Miss Beard will be interested is the public health movement in the Orient, especially in its relations to graduate and undergraduate instruction for nurses.

PROFESSOR SARAH M. STURTEVANT, of Teachers College, Columbia University, sailed late in December on sabbatical leave for India, Java, China, the Philippine Islands, Japan and the Hawaiian Islands. During her trip she will make a special study of the education of women and of the guidance programs as carried out in colleges and universities of the various communities visited. She plans to return to Teachers College for the summer session.

THE College of St. Catherine, St. Paul, Minnesota, reports the return of Sister Maris Stella and Sister Antonine to its English faculty after two years and several months of study abroad. During that time they spent two years at Oxford, obtaining there the honors degree in the school of English language and literature. After completing their studies and travel in England they spent several months on the continent. With the beginning of their work at the college, the lecture and class work in senior college English will be supplemented by the tutorial system, as at the older English universities.

ANDRÉ MORIZE, professor of Romance languages at Harvard University, will be on leave for the first half of 1930–31. Professor Charles H. Grandgent, of the same department, will be on leave during the second half of 1930–31.

MRS. BIRD HITCHCOCK FRASER, for five years dean of women at Mankato, Minnesota, Teachers College, is attending Columbia University this year and will later spend some months in Europe. Mrs. Fraser is succeeded by Mrs. Ueal S. Lewis, formerly of Jamestown College, North Dakota.

C. C. BRINTON, assistant professor of history and tutor in the division of history, government and economics, and Edward Ballantine, assistant professor of music and tutor in the division of music, will be absent from Harvard University during the second half of the current year. Professor Brinton will visit Beloit College, Knox College and Colorado College. As yet, no exchange professors from these colleges have been appointed to visit Harvard this year. Professor Ballantine will complete his sabbatical year, the first half of which he took last spring.

AT Columbia University Dr. Sten Bodvar Liljegren, professor of English philology at the University of Greifswald, has been appointed visiting professor of comparative literature for the year 1930–31, and Dr. Salo Baron, professor of history at the Jewish Institute of Religion, New York City, will occupy the newly established chair of Jewish history, literature and institutions.

FORMER GOVERNOR ALFRED E. SMITH, of New York, has been invited by President Glenn Frank, of the University of Wisconsin, to deliver a series of four lectures on the subject of "Practical Politics" at the university.

A SERIES of half-hour radio talks on "The Place of Physiology in Contemporary Civilization," given by Professor Francis M. Baldwin, of the department of zoology of the University of Southern California, on successive Wednes-

day afternoons at 4:30 over KEJK is announced. "Income and Outgo of Vital Energy" was the subject of the lecture on January 15; "Respiration and Engineering Advancements," on January 22, and "The Ductless Glands and Personality" will be the subject on January 29.

THE Eighteenth Annual Conference of Educational Associations was opened on January 1 at University College, London, and continued until January 8. At the inaugural meeting Professor Winifred Cullis gave her presidential address on "The Lure of Investigation."

The Association of Kentucky Colleges and Universities conducted its annual meeting January 18 at the University of Kentucky in Lexington. The association is composed of fourteen colleges and universities in the state, and has charge of the appointment of the high-school accrediting commission. W. L. Donavan, president, addressed the morning session on "Changing Conceptions of College Teaching." "A Study of the Quarter System" was discussed by Dean Paul H. Farrier, of Kentucky Wesleyan College. Professor Ezra L. Gillis, registrar of the University of Kentucky, addressed the meeting on "Records of High School Graduates in Kentucky Colleges." He was followed by a talk on "The History of the Twenty-five Years of the Association of Kentucky Colleges and Universities," by Dean Frank L. Rainey, of Center College. Before adjournment Professor Mark Godman, of the State Department of Education, made a report of the committee on accredited schools, and Dean P. P. Boyd, of the University of Kentucky, made a report from the Southern Association.

HARVARD UNIVERSITY will receive an unrestricted bequest of $5,000,000 under the will of the late Stuart Wyeth, chemical manufacturer of Philadelphia.

DISCUSSION

THE PLAIN FACTS ABOUT THE STATUS OF COLLEGE TEACHING

To what extent is college teaching well done? Granting that part of college teaching is poorly done, is college teaching on the whole more poorly done than teaching on other levels? Who knows?

Recently a speaker who has been appointed to a pivotal position where statistics count for much in educational affairs of our country in a public address made the statement that "the best teaching in America is in the primary grades, the next best probably in the high schools and the poorest of all in the colleges." The discussion from the floor which followed seemed to bear out the contention of the speaker and tended to fix the blame for this status of college teaching on members of the faculty on whom universities have conferred the highest honor within their power, the Ph.D.

The question raised in this connection is whether there is any virtue in such statements unless we are told in what respect the teaching of our colleges is inferior to all other teaching. Does our critic imply that all the teaching in college is poorer than any in the public schools, which are taught by the students of the college teachers? Does his statement mean that the best in college is poorer than the most inferior teaching of the primary? Does he mean to convey the impression that statistical data showing a comparison of teaching identical matter on the two levels show by the median performance of the two groups that the college group is poorer? Or, if none of this, what does the statement mean?

The plain facts about college teaching being inferior in some respects to the teaching of lower-grade schools in the same respects may be true beyond reasonable doubt, but that does not justify a generalization that the two levels below the college do better teaching, presuming thereby that the instruction in primary and high school is better than that of the college in all respects.

Instead of trying to make comparisons between the college instruction and that of another level, we need to make comparison of what is being done by college teachers with what ideally they should do to improve college teaching. It is reasonable to expect that some of the teachers are poor, many are good and a few are excellent in any type of school—primary, high school or college. Why should not the normal probability apply here as in all other traits?

If any one doubts that part of the primary teaching is poor, just let him ask some high-school teacher about the matter. The teacher of high-school English says that the typical freshman that enters from the elementary school does not know the parts of speech and their use, does not know the elements of a sentence—can not distinguish complete from incomplete sentences—can not write legibly or spell correctly, and his attitude is that of one who does not expect to do anything about it. The teachers of arithmetic in the junior high say that pupils can not read their problems, and the teacher of Latin or French complains that she must teach English grammar before she can proceed with teaching the grammar of the foreign language. From the teachers of any and all subjects the most common complaint is lack of thoroughness. Granting that thoroughness is an essential to good teaching, is there not room for doubting the statement that the primary teachers are better instructors than those of the high school?

In a similar way we have examined the status of high-school teaching by using the college teachers as judges of the quality of outcome as demonstrated by their own pupils. In English we hear complaints against the spelling, writing, constructions, sentence formation, use of capitals, general appearance of a theme, pupil's inability to think and write coherently and the like. The teachers of foreign language here as in high school say that the English grammar is neglected. It is common knowledge that the typical pupil does not know how to study, that he is the embodiment of carelessness and that he does not know, as a rule, any more about using a library than we should expect the elementary pupil to know. The first thing that the college must teach him is self-control in small matters that ordinarily we take for granted that he knows. On the whole, the typical college freshman is so dependent on detailed guidance of the faculty that any one conversant with him and the status of his education wonders how he "got by" during twelve years of nine months each in the elementary and high school and came to the college teacher to be turned out in four short years a finished scholar with all the holes in his early preparatory training filled and with a mastery of the technique of some vocation. It simply isn't true to plain facts that the faculty that can do that phenomenal thing for the typical college freshman does so by poor teaching.

To say that not all college teaching is poor does not imply that none of it is poor any more than saying that a certain teacher with the Ph.D. is a poor teacher indicates that all Ph.D.'s are poor teachers. In truth, this is the point at which the greatest fallacy is commonly found. It is not uncommon to find wordy articles these days advocating the discontinuance of the Ph.D. for teachers, because some men holding this degree have shown a preference for research and have in some measure shunted off some of the grind in teaching to allow time for their investigations. At first, the argument for a D.Ed. or some other distinguishing mark to show that the holder will not spend any of his time in research seems desirable. We all want to eliminate poor teaching. But closer consideration of the facts about the status of teaching discloses the fact that some of our best college teachers are at the same time among the leaders in research work by which we obtain our best texts, our devices for measuring the results of teaching and our data for evaluating methods of administration and instruction. Any one who has sat in the classes of men like Judd, Monroe, Terman, Gray, Bode, Buckingham, Brewer, Thorndike, Bagley, Kilpatrick and the remainder of the list, too long to include, can bear witness to the fact that teaching and research or creative thinking are not inimical. In fact, the list of good teachers who are creative thinkers is so long we are prompted to state that this investigating turn of mind is typical of all excellent teachers. The statement would hold, of course, only in so far as the research worker either keeps research the minor project or else directs his research in the line of his teaching.

The case of some Ph.D.'s being poor teachers may be explained in part by an analogy with the M.D. To-day, we would not propose that an eye, ear, nose and throat specialist should be given another degree, not the M.D., because he gives more attention to his chief interest than to removing an appendix or caring for a case

of typhoid. Neither should we think the teacher and the research specialist should have different degrees because one tends to confine his interest to one particular field. We must continue to have teachers who are interested in research and, *vice versa*, research men who can teach. The trouble has been that during these days of standardization when college administrators have been called on to raise the standards of scholarship, some of these college heads have blindly reached for a scholarly man who has the requisite degree to look good on paper, and when selecting such a man they have made no stipulations except that he must be a Ph.D. and the salary shall not exceed say $2,500 a year. In the scramble to fill the order, no man with that training was found to go for a salary less than that of a village principalship except one who had never expected to teach except long enough to get out of debt or till he got an appointment to do research. It is quite believable that the school that has made this mistake in selecting Ph.D.'s for its faculty without being more specific in the appointment has been as unfair to the Ph.D. as has the man to the school that employed him.

Finally, many people who assail college teaching as being poor in general quality make the mistake of calling a thing less desirable just because it is different. College is very different from either high school or elementary school. The study is not supervised, the assignments are longer and less dependent on text-books and pupils are supposed to stand on their own feet and work for themselves. Pupils find college standards of thoroughness and comprehension higher than they have ever met before and they meet keener competition working with the select pupils from many schools. Those who have limited success when coping with these new situations are inclined to look for an explanation of the discrepancy between marks in college and marks given by the high school. The shortest though not the truest answer in light of the plain facts of the case is to blame the teaching in general. This adverse report of failing pupils when circulated is sometimes taken erroneously for facts.

In conclusion, the plain facts about the status of college teaching include so many aspects and must be weighed on such a different scale from teaching on the lower levels that care should be exercised to avoid such generalizations as "the poorest teaching in America is done by the colleges" or "Ph.D.'s should not be allowed to teach" lest much harm should be done higher education unawares.

H. T. McKINNEY

BETHANY COLLEGE

QUOTATIONS

THE POPE ON THE EDUCATION OF CATHOLIC CHILDREN[1]

THERE are three agencies necessary for education. Two are of the natural order—namely, the family and civil society. The third is supernatural in character—namely, the church. The church is a society whereby a man is born through baptism to the divine life of grace; a society of supernatural, universal character; a perfect society, because it contains all the means necessary to its end, which is the eternal salvation of men.

The church, therefore, the encyclical holds, takes precedence over both the family and the state. Besides, it sets forth, education belongs preeminently to the church in consequence of a divine mandate given by Christ Himself, who ordered the apostles to teach the whole world. But the church "in its maternal prudence" conducts schools for laymen, which obey in each nation the legitimate regulations of the civil authorities, and is in all cases ready to come to an understanding with the civil authorities if difficulties should arise.

This part of the encyclical concludes by saying:

It is evident that both by right and in fact the educative mission belongs pre-eminently to the church. It is also evident that no intellect not clouded by prejudice can conceive of any reason to oppose or supplant the church in this

[1] From an abstract of the Encyclical of the Pope on schools, as reported to the New York *Times* in a cablegram from Rome by Arnaldo Cortesi.

mission, of which the world is now reaping the benefits.

After the church the duty of education belongs to the family, says the encyclical. The family has from the Creator, it holds, the inalienable right to educate the offspring.

On this point, the pontiff says, the opinion of the whole world is so unanimous as to place in evident contradiction those who maintain that the children belong to the state before they belong to the family or that the state has absolute rights in education. Baseless is the reasoning of those who hold that man is born a citizen and therefore belongs primarily to the state, not noting that before being a citizen a man must exist and that he received his existence not from the state but from his parents.

In support of his view the Pope quotes the American Supreme Court decision in the Oregon school cases of June 1, 1925, to the effect that the state can not lay down a uniform type of education for youths obliging them to attend only public schools and also that a child is not a mere creature of the state, but that those who bring him up have the right and duty to educate and prepare him to perform his duties as a citizen.

As for the state, the encyclical says it has the function of protecting and promoting the educative action of the church and the family, but not of absorbing the family and individuals or of replacing them. The state, the Pope asserts, also has the duty of providing education for children who have no parents or whose parents are delinquent. He also says it is the state's duty to protect the moral and religious education of youth and to complete the educational facilities of the church and the family with schools of its own in cases where the other agencies are insufficient.

The state has the right to demand of and therefore to impart to all citizens the necessary knowledge of their civil and national duties and that degree of intellectual, moral and physical culture which is required for the common good, the encyclical says, but in these cases the state must respect the rights of the church and the family.

Science, the encyclical continues, has nothing to fear from the instruction imparted by the church and the rule of scientific liberty must be accompanied by the rule of the freedom of teaching, provided it is rightly interpreted. It is evident, in fact, that every teacher, both public and private, has not absolute but only relative educational rights, the Pontiff says, adding that every Christian child has the right to be taught in conformity with the doctrines of the church, "the pillar and foundation of all truth."

It must not be forgotten, the Pope continues, that education must be imparted to men fallen from the original state but redeemed by Jesus Christ. There remain in man's nature the effects of original sin, particularly a weakened will and disordered tendencies, the encyclical says. All those systems of education are therefore false which are based on pedagogic naturalism, which includes all those systems which give to a child unbounded liberty by diminishing or suppressing the authority of education and attributing to a child exclusive primacy of initiative independent of all supernatural laws.

"An extremely dangerous thing," the Pontiff holds, "is that naturalism which invades the field of education in such delicate subjects as moral purity. Very widespread is the error of those who with dangerous presumptuousness and with ugly words promote so-called sexual education, falsely believing that they can forearm youths against the dangers of the senses with purely natural means, such as foolhardy inaction and preventive instruction or, worse still, by exposing them early in life to temptations in order to accustom them, as they say, and harden their hearts against those dangers.

"They err gravely in not recognizing the innate frailty of human nature and also in neglecting the experience which warns us that sins against morality are not so much the result of intellectual unpreparedness as of a weak will exposed to temptation and unsupported by grace."

The Pontiff said coeducation was injurious, because it also was based either on that naturalism which denies original sin or on "the lamentable confusion of ideas which mistakes legitimate living together with promiscuity." "The Creator ordered the perfect living together of the two sexes only in the union of matrimony,"

the encyclical says. There is nothing in nature itself which can be used as an argument in favor of promiscuity or equality in the education of the two sexes.

The sexes were made distinct by the Creator. They complement each other reciprocally owing to their diversity, which must therefore be maintained in education, with the necessary separation proportional to the various ages and circumstances. These principles must be applied in all schools, especially during the most delicate and decisive period of growth, namely, adolescence, and especially, also, in gymnastic exercises and sports for girls with due regard for their Christian modesty.

"From the considerations enumerated above," the encyclical says, "it follows that it is contrary to the fundamental principles of Christian education to send youths to lay or neutral schools from which Christian education is excluded. Such schools, indeed, are impossible in practice because they soon degenerate into anti-religious schools. We, therefore, confirm our previous declarations and sacred canons forbidding Catholic children to attend anti-Catholic, neutral or mixed schools, by the latter being meant those schools open equally to Catholics and non-Catholics."

Such practices can only be tolerated at the discretion of a bishop in special circumstances and with certain safeguards, the encyclical says. But in no circumstances can those schools be tolerated for Catholics if they are compulsory.

"It must be loudly proclaimed," says the Pope, "and properly understood and recognized by all, that by founding Catholic schools Catholics of all the nations of the world are not performing a political action but a religious action indispensable to their consciences. They do not intend to separate their children from the body and spirit of the nation, but to educate them in the most perfect way; in a way most conducive to the prosperity of a nation, because a good Catholic as a result of Catholic doctrine is for that very reason the best citizen. He loves his country, and is loyally subject to the civil authority constituted in any form of legitimate government."

Never was the need for Catholic schools greater than it is now, the Pontiff says, asserting that the "occasions for the moral and religious shipwreck of youths have increased, especially owing to impious and licentious books, many of which are diabolically distributed at low prices, to moving picture shows and now also to the radio. These powerful means for reaching enormous numbers of persons, which governed by healthy principles could be of the greatest utility to education and instruction, are, alas, only too often subordinated to the incentive of evil passions and the avidity of gain."

As to the aim of Catholic instruction, the Pontiff says it is to "cooperate with divine grace to form a true and perfect Christian, or in other words to form Christ in those generated by baptism, according to the injunction of the apostle.

"The true Christian is a product of Christian education, a supernatural man who thinks and acts constantly and coherently according to a healthy intellect illuminated by the supernatural light of the example and doctrine of Christ," the encyclical continues. "He is, in the phraseology now in use, a true man of character. The true Christian, instead of giving up the activities of life on earth blends them with the supernatural life in such a way as to ennoble his natural life not only in the spiritual and eternal sense but also in the material and temporal one."

The encyclical concludes with a request to the episcopacy of the world to raise their hearts and hands in prayer to God that these splendid fruits of Christian education may be realized and be multiplied in the whole world to benefit all the individuals of all nations.

REPORTS

ALUMNI AND ADULT EDUCATION

THE start which certain universities and colleges have made toward fulfilling the alumni slogan "Keep educated!" is set forth in a report of 113 pages by Wilfred B. Shaw, just issued by the American Association for Adult Education in cooperation with the American Alumni Council. Mr. Shaw, who has headed alumni

work at the University of Michigan for twenty-five years, was appointed field representative of the adult education association, following a meeting in October, 1928, of the aims and policies committee of the American Alumni Council and presidents of six universities. He visited forty-two institutions "which had already taken some steps toward developing an adult education program, or in which certain officers were known to be interested."

Mr. Shaw reports, in his introduction, that the university presidents who attended the 1928 joint meeting gave an affirmative answer to the question, "Has the college or university a definite responsibility for continuing education after graduation?" It was as a result of this conference that the American Association for Adult Education was formally requested "to bring this problem to the attention of university and college groups and authorities, or representatives of alumni bodies and of others who may be interested."

That there is little abroad, "even in England, to parallel the activities of our organized alumni" is brought out by Mr. Shaw, who goes on to sketch the development of the idea that this alumni interest should be directed toward intellectual ends instead of its present limited scope. Of late, he writes,

> we have begun to recognize that four years or eight years is too short a period in which to assimilate the vast field opened up by modern discoveries. We have begun to see that the only adequate view of education recognizes it as a continuing life process.

This conception has had a new impetus in the studies of Professor E. L. Thorndike, of Columbia, which show that "education is not an interest exclusively for adolescent and youthful years . . . and that the man or woman of forty-five is quite as capable of learning as the youth of sixteen or seventeen."

The most definite result of his six months' investigation was, Mr. Shaw states, to demonstrate "that interest in the conception of a continuing educational program for alumni is widespread among college executives and alumni officers." Quotations are given of expressions of such interest by President Butler, of Columbia, President Hibben, of Princeton, former President Wilbur, of Stanford, President Comstock, of Radcliffe, Chancellor Capen, of the University of Buffalo, President Chase, of North Carolina, President Sills, of Bowdoin, President Bowman, of Pittsburgh, President Wilkins, of Oberlin, President Ruthven, of Michigan, and others. As to the cooperation of alumni officers editorials are cited displaying an eager alumni attitude. "Don't just get educated; keep educated!" was a typical epigram of a Middle Western editorial.

There is a full account of a prior study made by Professor Daniel L. Grant, of the University of North Carolina, in which returns were received on the educational opportunities alumni are most interested in using. It was found that, of 951 alumni of fourteen institutions, about 28 per cent. "had utilized extension courses, and of this number only 103 reported any cultural extension studies." A similar study at the University of Michigan led to the conclusion "that there is a proportion of alumni in any given group who are interested in the possibility of an intellectual contact with their Alma Mater."

A report is then given of efforts in alumni education which have been actually carried on by American colleges and universities. The first of these was the plan of alumni reading and study inaugurated at Amherst in 1922. Lafayette College began an Alumni College in June, 1929—"a week's conference at Easton with some sixty-five former students in attendance." Statements are presented regarding work in this direction at Dartmouth, Princeton, Michigan, Columbia, Ohio State, Pittsburgh, Adelphia and Mills College.

Although this is not stated, the facts make it clear that the American Association of University Women and several of the women's colleges preceded practically all the other institutions in this field of alumni education. Adult education for its members has been a distinct element of the program of the American Association of University Women since its organization in 1882. Since 1922 the activity has been varied and widespread. Similarly, Vassar College had an educational conference of alumnae as early as 1921 and educational conferences in 1924 and 1925, as well as the Summer Insti-

tute of Euthenics which held its fourth annual session in 1929. Smith College has had a reading program for her alumnae for five years. The Institute for the Coordination of Women's Interests is held at Smith. Radcliffe College had educational conferences of alumnae in 1928 and 1929.

Mr. Shaw concludes his report with a discussion of future possibilities, "The Development of an Alumni Educational Program." Among the principles suggested are these:

> Provision must be made for those interested in a distinctly vocational or professional development, as well as for those seeking only intellectual satisfaction and mental stimulus in cultural studies.
>
> There are a number of avenues through which this reciprocal relationship between the alumni and the institution may be developed: personal contacts with alumni groups by college presidents and university officers, the distribution of speeches and printed reports to the alumni, book lists and reading lists, the organization of discussion groups and alumni conferences and the establishment of an alumni information service are among the more obvious measures. Though all these efforts have been tried at various institutions, nowhere have they all been equally successful. The establishment of an ideal educational relationship is still a matter for the future.
>
> The first steps toward alumni education should not be too elaborate. Experience indicates that measures which seek active response from the whole alumni body are unwise. Their success at the present stage can only be relative, and the ensuing discouragement will be the greater. It is better to develop a program from small beginnings than to establish a broad principle *a priori;* to deal with what can be demonstrated as existent rather than to seek conformity with *what ought to be.*

R. W.

EDUCATIONAL RESEARCH AND STATISTICS

FORECASTING FRESHMAN ACHIEVEMENT

RELIABLE estimates of individual students' fitness for college work are obviously important in determining whether or not they should be admitted. The whole array of school credits, entrance examinations, psychological and other tests, evidences of good character, personal references, ratings, etc., is concerned with two questions: (1) Can this candidate probably maintain a satisfactory record in his college studies? (2) If so, is he, in other respects also, the sort of individual whom we want in our student body?

All institutions of high standing strive to secure an answer to both these questions regarding every candidate for admission. The relative importance of scholastic and other intellectual possibilities on the one hand, and of character or personality factors on the other, may vary, but neither type of estimate is ignored. Increases in enrolment and the consequent limitation of numbers at many institutions have not only emphasized both these aspects of students' qualifications for admission, but have in some measure thrown them into contrast. If an institution finds it unwise to admit more than a certain number of candidates, it must be able first of all to justify its selections upon intellectual standards. At the same time, within any substantial group of individuals not differing appreciably in scholastic promise, it has a right to select those who, by character, force of personality and possibilities for subsequent leadership, appear likely to make the greatest total contribution to its life.

Of these two bases of judgment, the scholastic, though no more important, is obviously the more objective. Since it also affords the more specifically defensible rating, this is also the one most generally applied in practice. It should therefore be made just as reliable and comprehensive as possible. In fact, improvement of the methods for gauging candidates' intangible human qualities and for judging them as people rather than as "blue books" or application blanks awaits further refinement of objective scholastic criteria. If we wish to select students on the basis of character and personality traits, we must first be reasonably sure of their academic potentialities. When thoroughly sound predictions as to individuals' chances of scholastic success in college are available, more careful consideration can be given to the other elements equally important in selection.

Undergraduates differ greatly as to point of view, motivation, scholastic training, social and economic status and other factors significant for academic achievement. Advantages in one such respect may have, as corollaries, certain associated disadvantages. Students who are socially or economically favored, for instance, may by reason of that very fact be more indifferent scholastically than are other students struggling against financial odds. Specialized preparation as developed at certain preparatory schools, while successful in taking students over the immediate hurdle of entrance examinations, may engender habits of study actually stifling to their subsequent intellectual curiosity and development.

College populations also vary in proportionate representation of groups from different schools and localities. In attempting therefore to strike a proper balance between the various possible measures of students' probable scholastic performance at college, every institution must carefully study, in regard to its own particular student body, the relation of every such factor to each other one, and to college work as a whole. The general principles and data developed by any one institution, however, may very possibly be of direct interest and value to others. For that reason the following analysis is given of a rather comprehensive investigation in progress for the last three years at Yale University, concerning the prediction of freshman scholarship. This study has been cooperatively initiated and carried out by the board of admissions, the freshman year administration and the department of personnel study.

With the exception of those few who qualify for advanced standing, undergraduates admitted to Yale University all enter the freshman year, which is common both to Yale College and the Sheffield Scientific School. A small number of students (about twenty) who have satisfactorily completed at least one year's work of university grade elsewhere, enter the freshman year by transfer. All other entering students are required, following a satisfactory four-year school record, to take the usual College Entrance Board examinations (either Plan A or Plan B). Plan A designates the so-called "fifteen-unit" old-plan method; Plan B, for which only students with excellent school records are eligible, comprises four examinations (comprehensive English and three other subjects which the student has pursued during his last year in school). Somewhat over one fourth of each recent Yale class has qualified for admission under Plan B, the large majority still offering old-plan examinations. The class as a whole is limited to 850 members, selected from approximately 1,400 "final" candidates. The latter in turn represent the survival, from all original applicants, of those whose credentials have warranted most serious consideration.

Only students who have satisfactorily completed a normal secondary school course of study and who are personally recommended by their school faculties are eligible for admission by either plan. Confidential statements concerning each candidate are obtained from his secondary school. A transcript of the school record is also scrutinized before a student is accepted as a final candidate for examination.

Passing the entrance examinations, however, does not of itself necessarily insure a student's admission to Yale. He may be rejected on the basis of a low scholastic aptitude score, mediocre school record, unsatisfactory personal recommendations, disciplinary action at school, a low average grade (*e.g.*, barely passing) in his entrance examinations or such other cause as may appear to justify refusal of his application by the board of admissions. All the criteria mentioned and any other information which may throw light on the individual's candidacy receive careful consideration.

One of the most important of the College Entrance Board examinations required of all candidates for admission to the freshman class at Yale is the scholastic aptitude test. Complete information about this test and detailed statistical analyses of the test itself and of the results obtained by its use may be found in the Annual Reports of the College Entrance Examination Board and of its committee on scholastic aptitude tests, of which Professor Carl C. Brigham, of Princeton University, is chairman. This examination—which is of the so-called intelligence test type—has been carefully validated and possesses a high degree of reliability. It has proved to be a source of valuable additional information about students' potentialities,

supplementary to that offered by their school and entrance examination records.

There seem to be several factors, interrelated to some degree but yet essentially different, which determine scholastic attainment in the freshman year at Yale. The most important of these are the individual's inherent or potential ability, the opportunities he has had for its development through schooling and preparation for examinations and his seriousness of purpose, or motivation. The aim of the Yale investigation into these factors has been to develop a means of combining their separate effects into a single objective measure which will give proper weight to all of them, so as to predict as reliably as possible the level of classroom achievement to be expected of each student in his freshman year.

It is a reasonable conjecture that these three factors, though overlapping in part, are not equally well represented by each of the different measures of scholastic attainment previously mentioned. The scholastic aptitude test, for example, may best measure potential ability, and College Board examinations, specific preparation. The school record not only tests these qualities but also, extending as it does over four years, probably gives the best single index of sustained motivation. Naturally, however, speculative hypotheses of this nature should not supplant strictly objective attack on the problem in question. The relative weighting and proper combination of these various factors have therefore been determined by the usual technique of multiple correlation and regression equations. Since no refinement of statistical methods, however, can overcome inaccuracy in the original measures, much effort has been spent upon making the latter as independently reliable and individually significant as possible. Their subsequent combination by statistical procedure is, of course, a simple problem as compared with that of improving the original measures to begin with.

The raw intercorrelations of the various factors involved were found, at the start of this investigation, to be as follows for the class of 1930.

It was immediately apparent from consideration of these results that each measure was significantly related to the criterion (freshman year grades) and also that each, to some extent but not wholly, measured the same thing. Combining these measures by the usual methods yielded multiple correlation coefficients of approximately .69 for Plan A and .67 for Plan B. Subsequent correlation between actual freshman year grades, and the theoretical or estimated grades as thus predicted for each individual by regression equations, was .68. In view of the fact that first and second term grades themselves correlated only .80, the combined index evidently offered distinctly valuable possibilities, from the point of view both of selective admission and of freshman counseling. It was therefore determined, through intensive study of all the factors involved, to better the means of measuring them and thereby to increase the individual reliability of predictions obtained from their best-weighted combination. In outlining the original project, as well as in its subsequent development, Professor Brigham has given invaluable aid.

As school records appeared from the first to be the most important single factor in predicting college work, much effort has been expended on their standardization. Rank-in-class data now secured from the great majority of schools permit convenient expression of a student's school record upon a standard scale (with an arbitrarily determined mean of 75 and a stand-

TABLE I

INTERCORRELATIONS, FOR PLAN A AND PLAN B ADMISSIONS SEPARATELY, BETWEEN THE VARIOUS FACTORS USED IN COMPUTING PREDICTED SCORES FOR YALE FRESHMAN CLASS OF 1930

		No. of cases	Freshman grades	C. E. E. B. averages	School records	S. A. T. scores
Freshman grades	Plan A	606		.5488	.6063	.4604
	Plan B	174		.4220	.5518	.4929
C. E. E. B. averages	Plan A		.5488		.4674	.4035
	Plan B		.4220		.1885	.3666
School records	Plan A		.6063	.4674		.3864
	Plan B		.5518	.1885		.3488
Scholastic Aptitude Test scores	Plan A		.4604	.4035	.3864	
	Plan B		.4929	.3666	.3488	

ard deviation of 10). Thus whenever any student's rank in his school class is reported (as, *e.g.*, 42 in a class of 207) it is transmuted to its equivalent value on this standard scale (in this instance, 83).

The next step is so to adjust these standard grades as to give effect to the differences in selection and intellectual competition existing in different schools. If a student, for instance, stands 25 in a class of 60 at a first-rate preparatory school characterized by rigorous standards for admission to its lower forms and prompt elimination of boys whose performance is unsatisfactory, the probabilities are that this individual is distinctly superior in both performance and promise to one who ranks 250 in a class of 600 in a large high school. The fact that students from high schools often excel those from preparatory schools in college work does not invalidate this premise, since the samples drawn from the two sources are not equivalent. Almost all the graduates of such a preparatory school as has just been described go to college, while only a relatively small proportion of high-school students (usually those who have stood best in their school studies and who have been most highly motivated scholastically) qualify for admission to Yale under the College Board examinations. Initially, the preparatory school group as a whole represents a higher degree of academic selection than does the high-school group, but from within each of such respective groups, the college does not draw comparable samples of the respective school populations. Eventually, therefore, the sampling evens up, but relative performance in the two groups, while they are still in school, must be estimated by somewhat different procedures.

Two methods have been utilized for adjusting the standard school grades obtained from rank-in-class data, in such a way as to take account of these variations in school norms. The first of these is based upon analysis of the averages and standard deviations of scholastic aptitude test scores made during the last few years by candidates from a large number of high and preparatory schools. In respect to those students (over 28,000 in number) who have taken the scholastic aptitude test during the last three years, this method throws light upon both geographical and school differences. Practically all the large eastern preparatory schools and a large number of city high schools throughout the east and middle west are sufficiently well represented in this analysis to permit of a satisfactory initial correction, on this basis, of their academic standards.

For the second correction, special comparisons between the Yale records of students from different schools have been made in all cases where the individual school groups are large enough to yield reliable data. Such further adjustments have been adopted, however, with extreme caution and only in instances where a thoroughly conservative point of view justifies this action. By the use of these two largely empirical methods, which have been revised each year on the basis of added experience, the correlation between school records alone, and college grades, for the class as a whole, has been raised to approximately .63.

Similar procedure has been followed in respect to students' averages on their entrance examinations. In the case of some of the strongest eastern preparatory schools, whose preparation of students for the College Board examinations is exceptionally thorough and successful, it has been found that their students make considerably higher averages on these examinations than they subsequently do in their college work. In other words, scholastic predictions wholly based upon this criterion might be partially invalidated by the specialized training and practice in taking examinations and the resulting high College Board averages which such students receive. Adjustment of the entrance averages of students from such schools has consequently improved this criterion as well, especially for Plan A candidates. In last year's freshman class, 1932, the "adjusted" Plan A entrance averages correlated .64 with freshman year grades, or nine points higher than the corresponding correlation of three years ago. School and entrance records of this group measure to a large degree the same tendencies, as they correlate .62 with each other.

Detailed analysis of scholastic aptitude test scores has also been undertaken. The most promising results thus far obtained indicate that some of the subtests in the S. A. T. battery predict work in certain subjects of study better

than the average score on all tests predicts average performance in all freshman courses. Although this phase of the investigation has not as yet been carried far enough to develop differential equations raising the raw correlation between S. A. T. scores and college grades, the scholastic aptitude test, nevertheless, plays an important part in the multiple prediction, especially for Plan B cases.

It was found that age at entrance also correlates negatively with college work to a significant degree (−.37 for Plan A cases). Predictions for the present freshman class, 1933, therefore included age as a new member of the regression team. The nature of the Plan B examination method and of the group qualifying for admission thereunder makes age less important, however, for Plan B predictions. Analogous reasons make the school record relatively more important for Plan B than for Plan A cases, and the entrance examination averages less so.

The Plan B group as a whole is superior scholastically to the Plan A group and is distinctly more homogeneous, because only students with excellent school records are permitted to take Plan B entrance examinations. The correlations between predictions and freshman year grades are therefore somewhat lower for the Plan B than for the Plan A group. The zero order and multiple correlations for 1933 freshman predictions are given in the table which follows. These coefficients, from which the regression equations and multiple correlations are calculated, were obtained from the records of last year's freshman class, 1932. In fact, the formula for calculating predictions for incoming freshmen has thus far been rederived each year from analysis of the figures for the class immediately preceding.

The distribution of Yale freshman grades is quite restricted in range and somewhat skewed. Therefore, the predictions yielded directly by regression equations are transmuted to their actual grade equivalents. The final predictions accordingly form a distribution resembling that of the marking system with which they are to be used. Weighted data for two or more classes, combined in the manner of a moving average, probably will be utilized in future predictions. Comparison of the data in Tables I and II illustrates the degree of improvement

TABLE II

INTERCORRELATIONS, FOR PLAN A AND PLAN B ADMISSIONS SEPARATELY, BETWEEN THE VARIOUS FACTORS USED IN COMPUTING PREDICTED SCORES FOR YALE FRESHMAN CLASS OF 1933

		No. of cases	Freshman grades	C. E. E. B. averages	School records	S. A. T. scores	Age
Freshman grades	Plan A	591		.6393	.6617	.4070	−.3696
	Plan B	219		.4412	.5306	.4779	−.2008
College Entrance Examination Board averages	Plan A		.6393		.6233	.4370	−.3042
	Plan B		.4412		.1764	.3514	−.0373
School records	Plan A		.6617	.6233		.3923	−.3067
	Plan B		.5306	.1764		.3061	−.2408
Scholastic aptitude test scores	Plan A		.4070	.4370	.3923		−.2585
	Plan B		.4779	.3514	.3061		−.1483
Age at entrance	Plan A		−.3696	−.3042	−.3067	−.2585	
	Plan B		−.2008	−.0373	−.2408	−.1483	
Estimated correlation of prediction with criterion (multiple R with freshman year grades)	Plan A	.7358					
	Plan B	.6825					

in prediction which the methods herein discussed have brought about in the past three years.

Predictions for the class of 1932 (made before the class entered college and based upon 1931 data) correlated .68 with subsequent freshman year grades. Recalculation of these predictions by the formula since developed for 1933, as a check upon the latter, raises the 1932 correlation for the class as a whole to .74. When corrected for attenuation, this coefficient approximates .80.

As successive Yale freshman classes vary in scholastic ability and preparation to only a relatively small degree from year to year, it is probable that the actual degree of correspondence between predictions and grades for this year's freshmen will lie somewhere between these limits.

A better illustration of the actual utility of this prediction procedure may be obtained by calculating the variations between predicted and actual grades for each individual student. It will be seen from the following table that the prediction is accurate, within a range of four points, for 69 per cent. of the entire class. In less than 10 per cent. of the cases did the predictions and subsequent actual year grades vary from each other by more than seven points. The standard deviation of freshman grades is approximately 6.9, so that more than 90 per cent. of all predictions fell within a range of ± 1.0 S. D. on the marking scale.

TABLE III

ANALYSIS OF VARIATIONS BETWEEN PREDICTED AND ACTUAL FRESHMAN GRADES FOR THE YALE CLASS OF 1932

Amount of variation, in points, between predicted score and freshman average	Number of individuals whose average grades differed from predictions within the ranges indicated in first column	Totals and cumulative percentages (proportion of class for whom prediction was accurate within at least the range given in first column)	
			Per cent.
± 0–2 points	345	345	43
± 3–4 "	214	559	69
± 5–7 "	167	726	90
± 8–9 "	49	775	96
± 10 or more points	21	810	100

The reliability of individual predictions as developed by this method is significantly greater than could be obtained by consideration of any one alone of the several factors which together make up the predicted score. As the correlation between the first and second term freshman grades is now .85 (for the class of 1932), even perfect prediction technique could not be expected to yield much higher coefficients than those cited above. In fact, a coefficient of .85, representative of the reliability of the freshman marking system as thus determined, really represents the present limit of possible correspondence between predictions and freshman grades. To be able, from pre-matriculation data calculated even before the student is admitted, to estimate his freshman year average almost as accurately as his second term grades can be predicted after he has completed one freshman semester indicates that the predicted score is a valuable device. As suggested earlier in this article, it is through development of really reliable measures of scholastic potentiality that we can hope for the introduction as well into selective admission standards of other criteria, equally important but exceedingly difficult and dangerous to manipulate unless we are first sure that our scholastic index is sound.

There is, however, one more important use for the predicted score. It serves as an index not only of students' ability to do college work —*i.e.*, to exceed passing standards—but also of the degree of scholastic distinction to be expected of the ablest freshmen. Relatively too much attention in the past has been given by our colleges to mediocre or borderline students and not enough to those of exceptional promise. Even now, except perhaps in the honors courses of the two upper years, the special stimulation and opportunities extended to the student with an intellectual endowment distinctly above the average of his class are probably inadequate and are usually delayed in presentation. If he is not to lose his stride and momentum, if he is to find the classroom stimulating instead of dulling, the able freshman must not be forced into low gear at the start of his college work, while waiting for the rest of the procession to catch up

with him. This delay in attempting to give suitable special attention to the entering student worthy of it has been due in part to the lack, heretofore, of a sufficiently reliable index of all-around intellectual ability and interest. The many attempts at sectioning freshman classes on the basis of ability and the development of "placement" examinations to that end evidence sufficient recognition of the problem at many institutions. That these experiments have not proved wholly successful may be attributed in part to the relative unreliability of any single type of measure.

The student himself is not always to blame for his relative scholastic indifference or for the zeal with which he plunges into extracurriculum activities, where real ability may win more prompt recognition than it does in the classroom. Often this is due to the inefficiency of our scholastic machine, which waits too long before distinguishing individual ability and promise. One reason why Phi Beta Kappa membership, or the honor-roll of a class, fails to represent the real cream of intellectual ability is because it seems to be considered necessary for the scholastic system to operate on students for a year or two before we think of looking for the cream at all. Is there any wonder that at least part of it may have spoiled by that time? And would it not be considerably better to use a modern separator somewhat earlier in the process?

The typical academic system, in fact, does not put as much pressure on the potentially ablest students as it does upon those whose prospects are most dubious. That many of our best men are content to do "good average work" is apparently taken for granted by all concerned. They are not giving any trouble, and getting along on low gear enables them to tow at that speed a heavier extracurriculum load. Surely, however, there are few worse educational crimes than this one of allowing students whose intellectual efforts up to the time of college entrance have put them at the front of an incoming class thereafter to atrophy scholastically. There is no poorer training for life than the condoning of half effort. Our chief care in the first year of college has too often been to help the lame and the halt over the lowest hurdle. Should we not put forth at least as much effort to encourage and stimulate our strongest students towards scaling real heights?

The situation may be concretely illustrated by the records of the freshman class of 1932 at Yale. Thirty-nine students in this class had predicted scores above 85. Each of the twelve highest ranking men in the class (with averages running between 90 and 94) was within this group. That is, not a single man whose predicted average was not at least as high as 86 attained the distinction of ranking scholar. The potential ability necessary to attain such honor had been accurately predicted in each case before the student entered college. There were, however, twenty-seven other students of potentially equal ability. The following table shows the year grades for the entire group of thirty-nine freshmen with predicted scores above 85.

TABLE IV

DISTRIBUTION OF PREDICTED AND ACTUAL GRADES, FOR ALL FRESHMEN IN THE YALE CLASS OF 1932 WHOSE PREDICTED SCORE EXCEEDED 85 (ON SCALE OF 100)

Grades	Predicted score	Freshman grades obtained by the individuals with P. S. over 85
	No. of cases at each P. S. interval above 85	No. of cases at each grade interval
94		2
93		1
92	2	5
91	1	0
90	5	4
89	5	3
88	7	6
87	8	2
86	11	2
85		0
84		2
83		2
82		3
81		0
80		3
79		1
78		1
77		1
76		
75		1
	39	39

This table emphasizes the fact that while all the highest ranking students had distinctly high predicted averages, not all with equally high predicted averages extended themselves to the same degree. To be sure, each did better than average work, but not in every case as much better as he might have done. If all these men had been singled out from the start, pitted against each other and shown the special attention which their promise merited, it is not unlikely that their increased accomplishment would have abundantly repaid the faculty for such extra effort.

We should, of course, not relax our careful attention to the borderline student, who so often amply justifies the consideration shown him. The predicted score helps here, too, by warning us in advance of these cases. Having admitted a student under such circumstances, we should certainly bend every effort to keep him in college unless he is either hopelessly outclassed or not cooperative. At the same time it is sheer folly not also to exert ourselves at least as much in behalf of the most promising scholastic possibilities.

A high predicted score indicates that up to the time of college entrance a student has combined the best of ability, accomplishment and effort. Does he not merit our immediate recognition and our best encouragement to continued intellectual leadership? If we go about it in the right way, may we not, after all, stimulate him to as much proportionate effort as we sometimes succeed in evoking from the plodder who, with the throttle wide open and several people pushing from behind, can at best hope just barely to make the grade? The predicted score identifies for us the students at either extreme. Let us do our honest and intelligent best for both.

SUMMARY

(1) Scholastic potentialities of entering Yale freshmen are effectively predicted from a weighted combination of various pre-matriculation data. These predictions correlate about plus .70 with subsequent freshman year grades. More than two thirds of the individual predictions for last year's freshman class (1932) differed by not more than four points from the students' actual averages. In only 10 per cent. of the cases were predictions in error by more than one sigma (seven points) of the grade distribution.

(2) Such predictions can be effectively utilized both for selective admission of students and for subsequent early differentiation of those whose academic potentialities are thus known in advance to be either unusually strong or dangerously weak. Means should be provided to prevent the potentialities of the ablest students —who have given evidences of high scholastic motivation as well as marked ability in school— from suffering intellectual atrophy after entering college, as a result of the lock-step system they too often find awaiting them there.[1]

ALBERT BEECHER CRAWFORD
Director
DEPARTMENT OF PERSONNEL STUDY,
YALE UNIVERSITY

BOOKS RECEIVED

ATWATER, HELEN W. *Home Economics.* Pp. 41. American Library Association.

EMERSON, WILLIAM R. P. *The Diagnosis of Health.* Pp. xiv + 272. 51 figs. Appleton. $3.00.

FITCH, JOHN A. *Capital and Labor.* Pp. 34. Illustrated. American Library Association.

HOCKING, WILLIAM E. *Types of Philosophy.* Pp. xvi + 462. Scribner's. $2.50.

LEWIS, CLARENCE I. *Mind and the World Order.* Pp. xiv + 446. Scribner's. $3.00.

MACDONALD, AUSTIN F. *American City Government.* Pp. xv + 762. Crowell. $3.75.

MCKINNEY, FRANK C., and MARY EULA MCKINNEY. *A Case Book in Discussion.* Pp. vii + 267. Ronald Press. $2.00.

SMITH, C. J. *Principles of Physics.* Pp. viii + 287. 194 figs. Longmans, Green. $3.50.

SMITH, JAMES H., and WILLIAM C. BAGLEY. *Mastery Word List, Grades 2–8.* Pp. xiv + 178. Heath.

WATKINS, GORDON S. *Labor Problems.* Pp. xvi + 726. 14 charts. Crowell. $3.50.

WYER, JAMES I. *Reference Work.* Pp. xii + 315. American Library Association.

[1] Several points made in Professor Kellogg's recent valuable contribution published in SCHOOL AND SOCIETY (December 28, 1929) after the preparation of this article are pertinent thereto.

Dr. Kellogg suggests that the validity of prognoses based upon intelligence test scores depends largely upon the degree of students' academic motivation, and also that extra-curriculum interests may be utilized to induce a form of secondary motivation. Earlier studies of both these topics have already been reported by the present writer ("Incentives to Study," Yale University Press, 1929).